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| APPLICATION NO.                     | FILING DATE   | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO |
|-------------------------------------|---------------|----------------------|-------------------------|-----------------|
| 09/855,169                          | 05/14/2001    | Howard M. Welch      | 03768/09379             | 8922            |
| 75                                  | 90 11/07/2002 |                      |                         |                 |
| Neil C. Jones                       |               |                      | EXAMINER                |                 |
| Nelson Mullins Riley & Scarborough  |               |                      | AFTERGUT, JEFF H        |                 |
| Keenan Buildin                      |               |                      |                         | ,,,,,,          |
| 1330 Lady Street Columbia, SC 29201 |               |                      | ART UNIT                | PAPER NUMBER    |
| Columbia, 5C                        | 2,201         |                      | 1733                    | . <u>.</u>      |
|                                     |               |                      | DATE MAILED: 11/07/2002 | 8               |

Please find below and/or attached an Office communication concerning this application or proceeding.

|   | Application N .         | Applicant(s)                                       |  |  |  |  |
|---|-------------------------|--|--|--|--|--|
|   | 09/855,169              | WELCH ET AL.                                       |  |  |  |  |
| Office Action Summary   | Examiner                | Art Unit   |  |  |  |  |
|   | Jeff H. Aftergut        | 1733   |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the corresp ndence address Period for Reply  |                         |  |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).  - Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). |                         |  |  |  |  |  |
| Status  |                         |  |  |  |  |  |
| 1) Responsive to communication(s) filed on  |                         |  |  |  |  |  |
| , <u> </u>  | s action is non-final.  |  |  |  |  |  |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. Disposition of Claims  |                         |  |  |  |  |  |
| 4)⊠ Claim(s) <u>1-28</u> is/are pending in the application.   |                         |  |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.  |                         |  |  |  |  |  |
| 5) Claim(s) is/are allowed.   |                         |  |  |  |  |  |
| 6)⊠ Claim(s) <u>1-28</u> is/are rejected.   |                         |  |  |  |  |  |
| 7) Claim(s) is/are objected to.   |                         |  |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.   |                         |  |  |  |  |  |
| Application Papers  |                         |  |  |  |  |  |
| 9)☐ The specification is objected to by the Examiner.   |                         |  |  |  |  |  |
| 10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.   |                         |  |  |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).   |                         |  |  |  |  |  |
| 11) The proposed drawing correction filed on is: a) approved b) disapproved by the Examiner.  |                         |  |  |  |  |  |
| If approved, corrected drawings are required in reply to this Office action.  |                         |  |  |  |  |  |
| 12)☐ The oath or declaration is objected to by the Examiner.  |                         |  |  |  |  |  |
| Priority under 35 U.S.C. §§ 119 and 120   |                         |  |  |  |  |  |
| 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).   |                         |  |  |  |  |  |
| a) All b) Some * c) None of:  |                         |  |  |  |  |  |
| 1. Certified copies of the priority documents have been received.   |                         |  |  |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No  |                         |  |  |  |  |  |
| <ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>   |                         |  |  |  |  |  |
| 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  |                         |  |  |  |  |  |
| a) The translation of the foreign language provisional application has been received.   |                         |  |  |  |  |  |
| 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.  |                         |  |  |  |  |  |
| Attachment(s)   |                         |  |  |  |  |  |
| 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4.7</u>  | 5) Notice of Informal P | (PTO-413) Paper No(s) Patent Application (PTO-152) |  |  |  |  |

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## Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1-4, 6-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Canadian Patent 2248575 in view of PCT WO 92/16366.

Canadian Patent '575 taught a process for forming an elastic nonwoven composite web which included the steps of extruding a plurality of elastomeric filaments from an extruder 150 in a vertical direction onto a chill roller 162 disposed below the extruder. As depicted in Figure 10, the reference taught that one skilled in the art at the time the invention was made would have fed the extruded elastic filaments between a plurality of chill rollers, 162, 164, 166, and 168. The elastic filaments were then fed into the nip formed by rollers 184. Also at the nip between rollers 184 was fed two nonwoven webs 170 and 180 each of which were provided with adhesive on their faces (adhesive was sprayed upon the web 170 from applicator 176 while adhesive was stated to have been applied to the web 180 from a device not shown in the figure, see page 40, lines 5-11, for example). The reference suggested that the speed of the calender rollers would have been faster than the speed of the chill rollers in order to stretch the elastic ribbon shaped filaments prior to the lamination in the calender nip rollers, see page 40, line 21-page 41, line 4. The reference suggested that the elastic material would have been stretched from 1.1-10 times its original length, preferably between 2-7 times its original length, see page 18, lines 1-3. The reference suggested that the adhesive would have been sprayed in the form of meltblown

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adhesive upon the nonwoven webs. The reference additionally suggested those skilled in the art would have provided more than one cooling roller and that the number of rollers over which the elastic filaments passed prior to reaching the nip was four wherein the first two rollers were clearly recited to be chill rollers. The reference failed to express that the elastomer filament extruding device was canted relative to the take up of the elastomeric filaments on the chill roller.

PCT WO '366 suggested that it was known at the time the invention was made to extrude elastic filaments from an extruder in a canted direction toward a temperature controlled take up roller. The reference suggested that elastic filament arrays 72 would have been extruded from an extruder and fed down upon a chill roll 86 in a canted direction in the manufacture of an elastic nonwoven composite material, see Figure 3, lines 28-31 of page 20 as well as Figure 4. The reference to PCT WO '366 clearly suggested that one skilled in the art at the time the invention was made knew to feed the filaments in either a direct vertical orientation or a canted orientation to a chill roller in the manufacture of composite elastic. It should also be noted that subsequent to bonding in WO '366, the reference suggested that the elastic was allowed to relax prior to take up in order to allow the composite fabric so formed to develop gathers therein. It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a canted feed for the elastic filaments onto a chill roller as such was known as an alternative to feeding the filaments vertically downward as suggested by PCT WO 92/16366 in the operation of forming an elastic composite web as suggested by Canadian Patent 2248575.

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3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 2 further taken with any one of Japanese Patent 54-82424, Wirz or Ditzler.

The references as set forth above taught the overall operation for forming the composite elastic fabric, however the references failed to expressly suggest that one skilled in the art at the time the invention was made would have rethreaded the filaments of elastomeric material after the same were extruded upon breaking of the elastomeric filaments wherein the rethreading operation was performed automatically. However, those skilled in the art of spinning fibers from bushings (spinnerets) were well aware of problems associated with fiber breakage and the needs to shutdown to clean the devices when such occurred. The references to each one of Japanese Patent 54-82424, Wirz or Ditzler suggested that it was known to automatically cut and rethread filaments from a spinneret when the filaments were broken. Certainly, one spinning filaments from a spinneret in an automated process for laminating would have understood that the problems of filament breaking would have been present in the operation and would have provided one with the ability to rethread the filaments in the processing line as suggested by any one of Japanese Patent 54-82424, Wirz or Ditzler. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the system with a means for automatically rethread the extruded filaments from the bushing in the process as such was known when fiber breakage occurred as evidenced by any one of Japanese Patent 54-82424, Wirz or Ditzler in the process of making a composite elastic material from extruded elastic filaments.

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## Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff H. Aftergut whose telephone number is 703-308-2069. The examiner can normally be reached on Monday-Friday 6:30-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael W. Ball can be reached on 703-308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Primary Examiner
Art Unit 1733

JHA November 5, 2002